

What is claimed is:

1. A medium holding electronic device executable steps for a method, said method comprising the steps of:
  - providing a graphical interface;
  - providing at least one hardware object, representative of a hardware device and depicted in said graphical interface, the hardware object configured to be interactive with said hardware device and enable communication between said graphical interface and said hardware device; and
  - providing at least one of the group of a software object and an analysis object; wherein said software object is representative of a software device, depicted in said graphical interface, and configured to be interactive with said software device and enable communication between said graphical interface and said software device; and
  - wherein said analysis object is adapted to communicate with at least one of said hardware object and said software object for analysis of data from at least one of said hardware object and said software object.
2. The medium of claim 1, wherein said step of providing at least one of the group of a software object and an analysis object provides a software object.
3. The medium of claim 1, wherein said step of providing at least one of the group of a software object and an analysis object provides an analysis object.
4. The medium of claim 1, said method further comprising the step of receiving program steps for execution by said hardware object.



5. The medium of claim 1, wherein a plurality of hardware objects are provided for a single hardware device.
6. The medium of claim 1, wherein a plurality of hardware objects are provided for a plurality of hardware devices.
7. The medium of claim 1, said method further comprising the steps of:  
scanning for available hardware; and  
creating a hardware object for each hardware device detected and not already associated with a hardware object.
8. The medium of claim 7, wherein said step of scanning involves the step of receiving user-defined commands to be sent to said hardware device to attempt to identify said hardware device.
9. The medium of claim 1, wherein said analysis object filters data.
10. The medium of claim 1, wherein said analysis object plots data.
11. The medium of claim 1, wherein said graphical interface displays all of said hardware objects and said software objects accessible to said electronic device.
12. The medium of claim 1, wherein at least one of said steps of providing at least one hardware object and providing at least one software object further comprises the step of



accessing at least one of a hardware object and a software object located on a remote electronic device.

13. The medium of claim 12, wherein said step of accessing is performed through a web page.

14. The medium of claim 12, wherein said step of accessing is performed over a network.

15. The medium of claim 14, wherein said step of accessing is performed by passing MATLAB commands over said network.

16. The medium of claim 1, said method further comprising the step of modifying at least one of said hardware object and said software object.

17. The medium of claim 16, wherein said step of modifying specifies a protocol for use by said hardware object for communication with said hardware device.

18. The medium of claim 16, wherein said step of modifying modifies a value stored in an array of an array-based environment.

19. The medium of claim 1, said method further comprising the step of modifying a value stored in an array of an array-based environment, thereby modifying at least one of said hardware object and said software object.



20. The medium of claim 1, said method further comprising the step of exporting data from said graphical interface to an array-based environment.
21. The medium of claim 1, said method further comprising the step of converting user actions with the graphical interface into code.
22. The medium of claim 21, wherein the code is MATLAB code.
23. The medium of claim 21, wherein the code comprises steps to create an analysis object, configure the analysis object and write and read data from the analysis object.
24. The medium of claim 21, wherein the code comprises an analysis routine.
25. The medium of claim 1, wherein said graphical interface is implemented with an extensible API.
26. The medium of claim 1, said method further comprising the step of generating an analysis object that can be used in MATLAB.
27. The medium of claim 1, said method further comprising the step of generating an analysis object that can be used in SIMULINK.
28. The medium of claim 1, wherein said graphical interface is adapted to operate on a plurality of operating systems.



29. The medium of claim 1, wherein said graphical interface comprises a tree view, wherein said tree view groups said hardware objects and said software objects by a functionality characteristic.

30. A method for managing an interface, said method comprising the steps of:  
providing a graphical interface;  
providing at least one hardware object, representative of a hardware device and depicted in said graphical interface, the hardware object configured to be interactive with said hardware device and enable communication between said graphical interface and said hardware device; and  
providing at least one software object, representative of a software device, and depicted in said graphical interface, the software object configured to be interactive with said software device and enable communication between said graphical interface and said software device.

31. The method of claim 30, further comprising the step of receiving program steps for execution by said hardware object.

32. The method of claim 30, wherein a plurality of hardware objects are provided for a single hardware device.

33. The method of claim 30, wherein a plurality of hardware objects are provided for a plurality of hardware devices.

34. The method of claim 30, further comprising the steps of:



scanning for available hardware; and  
creating a hardware object for each hardware device detected and not already  
associated with a hardware object.

35. The method of claim 34, wherein said step of scanning involves the step of receiving user-defined commands to be sent to said hardware device to attempt to identify said hardware device.

36. The method of claim 30, further comprising the step of providing an analysis object adapted to communicate with at least one of said hardware object and said software object.

37. The method of claim 30, wherein said graphical interface displays all of said hardware objects and said software objects accessible to said electronic device.

38. The method of claim 30, wherein at least one of said steps of providing at least one hardware object and providing at least one software object further comprises the step of accessing at least one of a hardware object and a software object located on a remote electronic device.

39. The method of claim 30, further comprising the step of modifying at least one of said hardware object and said software object.

40. The method of claim 39, wherein said step of modifying specifies a protocol for use by said hardware object for communication with said hardware device.



41. The method of claim 39, wherein said step of modifying modifies a value stored in an array of an array-based environment.

42. The method of claim 30, further comprising the step of generating an analysis object that can be used in MATLAB.

43. The method of claim 30, further comprising the step of generating an analysis object that can be used in SIMULINK.